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| 10/027,331 | 12/20/2001 | Willem Bulthuis | US 018199 | 1592 |

7590 03/07/2007
Corporate Patent Counsel
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EXAMINER

ZEWDU, MELESS NMN

| | |
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| ART UNIT | PAPER NUMBER |
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2617

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/07/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/027,331

Applicant(s)

BULTHUIS, WILLEM

Examiner

Meless N. Zewdu

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-6, 9, 10 and 17-24 is/are rejected.
- 7) ☒ Claim(s) 3, 7, 8 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/4/02; 7/14/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is the first on the merit of the instant application.
2. Claims 1-25 are pending in this action.
3. Upon reviewing applicant's arguments and comments, regarding the election/restriction requirement in the previous action, examiner has been concede in part and thus has modified, the previous election/restriction requirement as shown below. Examiner also notes, that in response to the previous election/restriction requirement, applicant has elected group I claims and thus are being examined.

Election/Restrictions

This application contains claims directed to the following patentably distinct species: Group I, claims 1-10 and 17-25, directed to locating devices in a communication system, classified in (455/456.2); Group II, claims 11-16, classified in (381/59), directed to determining location of a plurality of loudspeakers. The species are independent or distinct because determining location of devices that are not loudspeakers is different from determining location of loudspeakers; it requires different search areas and search techniques.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, group I claims are generic.

Art Unit: 2617

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-6, 9-10, 17, 19 and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Gray et al. (Gray) (US 6,674,403 B2).

As per claim 21: Gray discloses about a method of adjusting a system, comprising:

Art Unit: 2617

determining a location of each devices of a plurality of devices, based on feedback from the plurality of devices (see abstract; col. 2, lines 37-60). This particular feature does not call for simultaneous determination of a plurality of location. Hence, it reads on the prior art location system which can determine the location of any given mobile station/device.

adjusting the system based on the location of each device (see col. 13, line 65-col. 14, line 1).

As per claim 22: Gray discloses a method, further including:

controlling each device of the plurality of devices to provide a controlled feedback (see col. 2, line 37-col. 3, line 2). The receipt of RSSI (a feedback signal) is made based on a control signal.

As per claim 23: Gray discloses a method, further including:

receiving the feedback from at least two devices of the plurality of devices, based on emanation from other devices of the plurality of devices (see col. 2, line 37-col. 3, line 2). The APs determine the RSSI and pass it to the back-end. Note: receiving the feedback from at least two devices does not include simultaneous reception.

As per claim 24: Gray discloses a method, wherein determining the location of each device includes at least one of determining an amplitude (RSSI) of an emanation from each devices (wireless device) at other devices (APs) (see col. 2, line 37-col. 3, line 2; col. 4, line 30-col. 5, line 26). The reference satisfies the at least one condition required by claim 24. Furthermore, it should be noted that RSSI is a measure of a signal strength, which is a function of amplitude.

Art Unit: 2617

As per claim 17: Gray discloses a controller for a wireless system comprising:

a location determinator that is configured to determine a location of each base station (APs) of a plurality of base stations (APs) (see fig. 1, elements 170 and 190; col. 11, line 55-col. 12, line 7; col. 10, line 35-col. 11, line 6), based on emanation from each base station (see col. 11, line 55-col. 12, line 7), each base station (AP) being configured to provide communications to wireless devices in a vicinity of the base station (see fig. 1; col. 12, lines 17-29), and an evaluator that is configured to determine an adjustment to the wireless system, based on the location of each base station (see col. 11, line 55-col. 12, line 7).

As per claim 19: Gray discloses a controller see fig. 1, block 100), wherein:

the adjustment to the wireless system include at least one of a gain, a phase, a delay, a frequency, and a channel allocation associated with one or more of the plurality of base stations (see col. 1. line 57-col. 2, line 8; col. 11, line 55-col. 12, line 40), and

a recommended relocation of one or more of the plurality of base stations (see col. 3, line 42-col. 4, line 62).

As per claim 1: the features of claim 1 are similar to the features of claim 17 except a plurality of devices that are distributed within an environment, a location of one or more devices of the plurality of devices affecting a performance of the system, which is disclosed by Gray (see fig. 1, elements 110; col. 9, lines 15-26). Hence, claim 1 is rejected on the same ground as claim 17.

As per claim 2: Gray discloses a system, wherein:

Art Unit: 2617

at least two devices of the plurality of devices are configured to detect an emanation from a select device of the plurality of devices (see col. 3, lines 30-41), and to communicate parameters associated with the detected emanation to the location determinator (see col. 5, lines 11-26), and

the location determinator is configured to determine the location of the select device based on parameters of the detected emanation (see fig. 1, block 100; col. 5, lines 11-46).

As per claim 4: Gray discloses a system, wherein:

the select device includes a radio-frequency transmitter (see fig. 1, element 120), and the at least two devices include radio-frequency receivers that are configured to detect a radio-frequency signal from the transmitter (see fig. 1, elements 110).

As per claim 5: Gray discloses a system, wherein:

the parameters associated with the detected emanation include s time of arrival of the detected emanation (see col. 1, line 57-67). See also a frequency characteristic of the detected emanation (col. 5, lines 11-27). The prior art satisfies the at least one of the parameters as required by claim 5.

As per claim 6: Gray discloses a system, wherein:

each device/mobile of at least a subset of the plurality of devices (see col. 1, lines 20-37; abstract), include:

an emanator/transmitter that provides an emanation signal (see fig. 1, element 120);

a detector that detects emanated signals from other devices of the plurality of

Art Unit: 2617

devices (see col. 6, lines 26-64), and communicates one or more parameters associated with the emanated signals from the other devices to the location determinator (see fig. 1; elements 120, 110 and 100; col. 6, lines 26-43; col. 8, lines 37-67), and

the location determinator is configured to determine the location of the other devices based on the parameters of the detected emanated signals (see fig. 1, block 100; col. 12, lines 40-66).

As per claim 9: Gray discloses a system, wherein:

each of the subset of the plurality of devices includes a transmitter and a receiver for emanation and detection of radio-frequency signals (see fig. 1, element 120; abstract). the element 120 in fig. 1 is a representative of a plurality of devices (see col. 1, lines 20-37; col. 6, lines 26-64).

As per claim 10: Gray discloses a system, wherein:

the adjustment of the system includes at least one of a relocation of one or more devices (see col. 11, line 30-col. 12, lines 7). The prior art satisfies the at least one of the parameters for adjusting the system, as required by claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2617

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Examiner's Official Notice.

As per claim 18: Gray discloses a location determinator and a plurality of base stations each including a receiver, as discussed above in the rejection of claim 17 (see also fig.

1). But, Gray does not explicitly teach that the receiver is configured to detect transmission from the plurality of base stations, to facilitate the determination of the location of each base station by the location determinator, as claimed by applicant.

However, examiner takes **Official Notice** that locations of base stations are fixed and known at least by its operator and hence, one of ordinary skill in the art at the time of the invention would have known the location of any base station since it is fixed.

As per claim 20: the feature of claim 20 is similar to the feature of claim 18. Hence, claim 20 is rejected on the same ground and motivation as claim 18.

Allowable Subject Matter

Claims 3, 7, 8 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Note: claim 8 is objected because of its dependency on claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah Charles can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2617

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless Zewdu

A handwritten signature in cursive script, appearing to read 'Zewdu, Meless'.

Examiner

16 February 2007.